2011-02-22 Tuesday Morning Notes

Tuesday, February 22, 2011
7:40 AM

Interesting Happenings

- Beam dump water system pressure dropped precipitously Sunday afternoon. The reservoir tank level had fallen 3.5 inches (1.7 gallons) since the last fill on Thursday, 2/17. This morning,(Monday) it appears that the level has dropped another 3 to 4 inches since the fill Sunday afternoon or just about 2 gallons. Clearly the leak rate has accelerated. The following plot shows the pump inlet pressure history since January 25 before circuit #1 started to leak, the switch over to circuit #2 on 2/1, the operating pressure range change on 2/9, and the sudden increase in leak rate on 2/20.
  Pasted from <http://www-bd.fnal.gov/cgi-mach/machlog.pl?nb=pbar11&action=view&page=38&frame=2&anchor=&hilite=&load=>
- We had yet another network storm
  - Debuncher 10 BPMs needed ACNET communication socket reset (http://www-bdnew.fnal.gov/pbar/documents/Eng_Info/Eng.html)
  - SEM806 sequence off
  - D:EKIK scope needed a reboot
  - DCE11 needed a restart
  - AP2 BPMs at F27 were power cycled, so had to run the restart script (http://www-bdnew.fnal.gov/pbar/documents/Eng_Info/Eng.html)
  - DRF2 AWG file script had to be run (http://www-bdnew.fnal.gov/pbar/documents/Eng_Info/Eng.html)
- Stacking was turned off for target station dump water system leak repairs.
  - We had already switched over to the spare set of LCW lines a number of months back. Now both lines leak.
  - We shutoff to apply a high tech stop leak to both sets of lines. This requires a process of cleaning and flushing the lines, putting the chemical in and letting it sit overnight. Expected stacking off time is at least 18 hours.
- Pbar Rings access
  - DRF1-6 PA tubes replaced
  - Replaced A:SPTL06
  - Added 8dB of gain to Debuncher horizontal band 2
  - Removed 4dB of gain fromi Debuncher momentum band 1
  - Adjusted reverse power sensor for Debuncher momentum band 3 twt 7
  - Cryo checked vacuum and pumps in tunnel
  - Water flow switch changed on ARF1 anode power supply
  - LCW leak on orange hose for quad shunt D:QS729 was repaired
  - Small dripper on D1Q5 was repaired
  - Leak around IQ23 (AP2 line, transport enclosure) can be seen through gate. Wait for another day.

Numbers

- Stacking
  - Pbars stacked: 00.00 E10
  - Time stacking: -360620.84 Hr
  - Average stacking rate: 00.00 E10/Hr

- Uptime
  - Number of pulses while in stacking mode: 5166
  - Number of pulses with beam: 4887

- Fraction of up pulses was: 94.60%

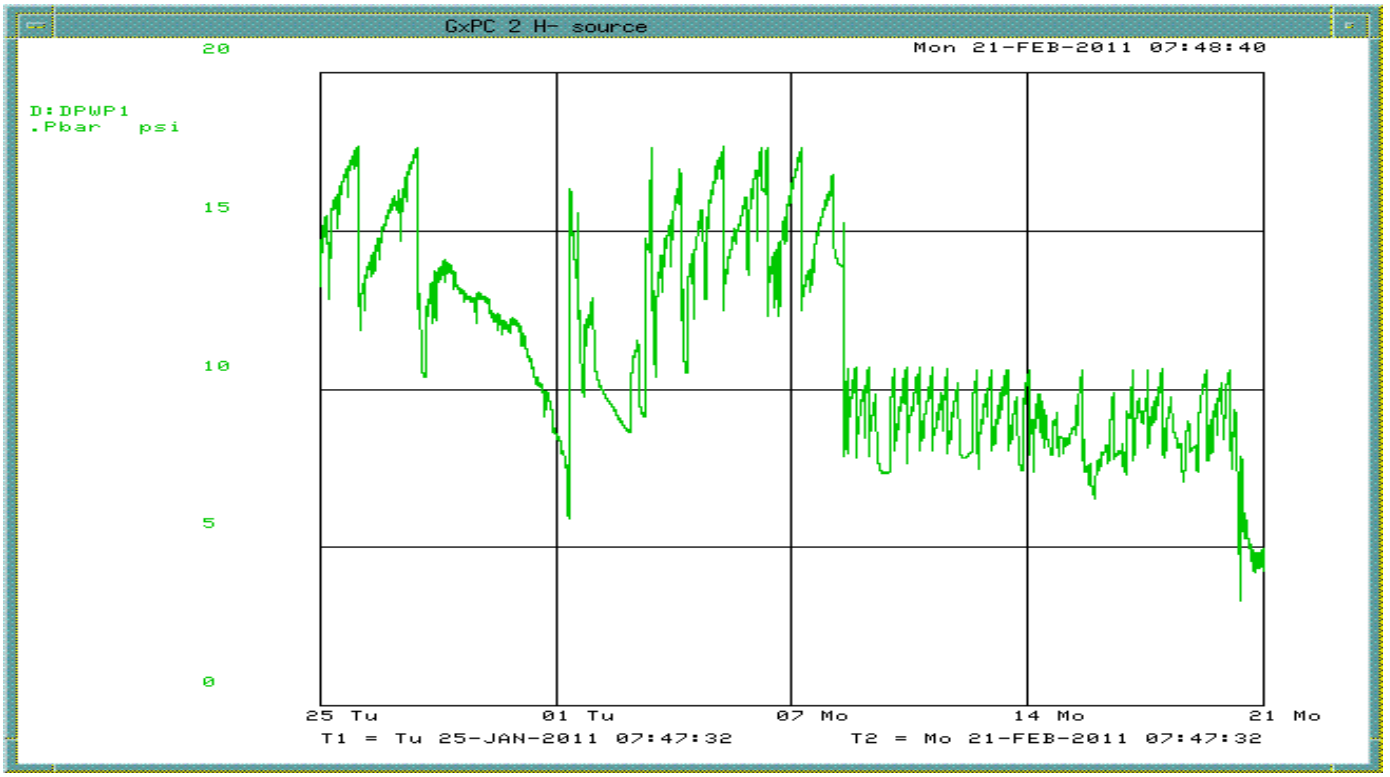
- The uptime's effect on the stacking numbers
  - Corrected time stacking: -341144.80 Hr
  - Possible average stacking rate: 00.00 E10/Hr
  - Could have stacked: 00.00 E10/Hr

- Recycler Transfers
  - Pbars sent to the Recycler: 00.00 E10
  - Number of transfers : 0
  - Number of transfer sets: 2
  - Average Number of transfer per set: 0.00
  - Time taken to shoot including reverse proton tuneup: 00.00 Hr
  - Transfer efficiency: ?%

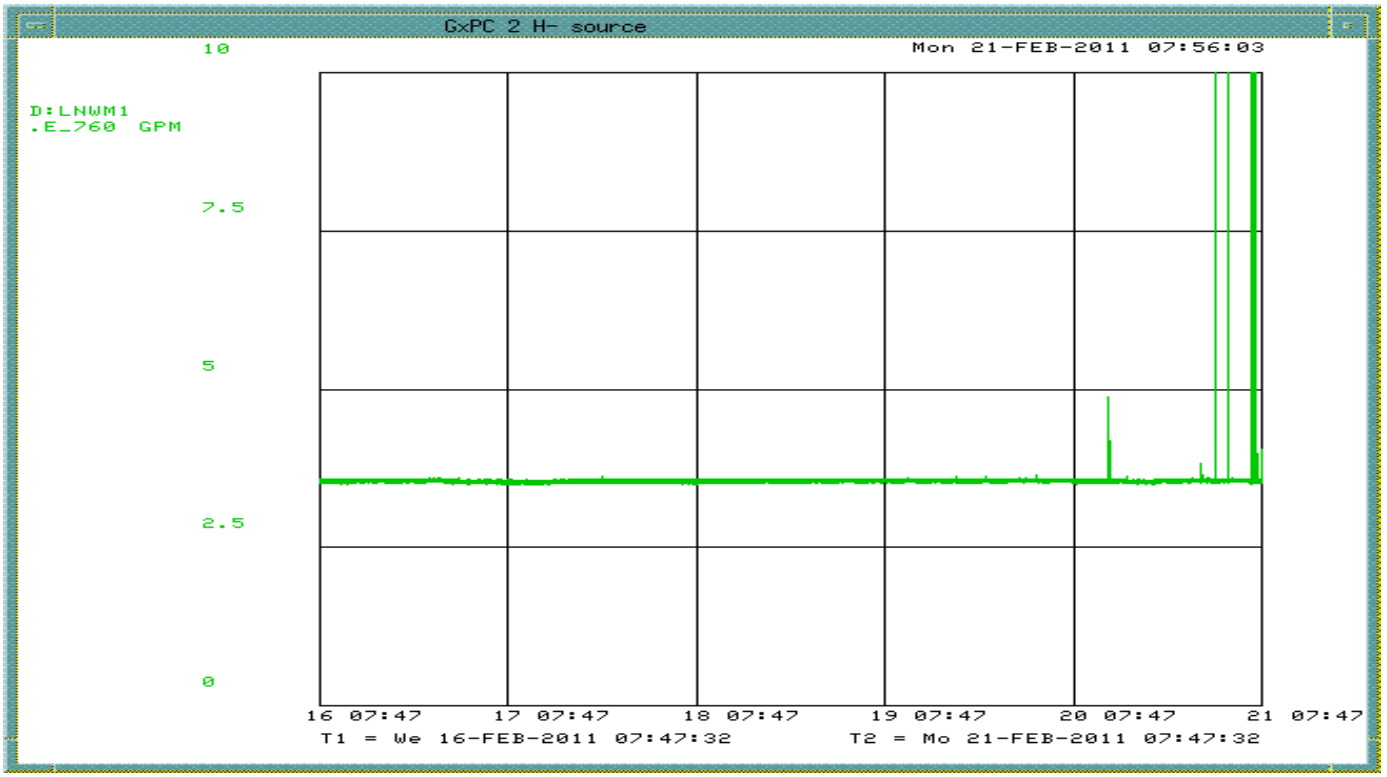
- Other Info
  - Average POT : 7.87 E12
  - Average production: 0.00 pbars/E6 protons

- * Red indicates a problem during data retrieval. See the message window for details.

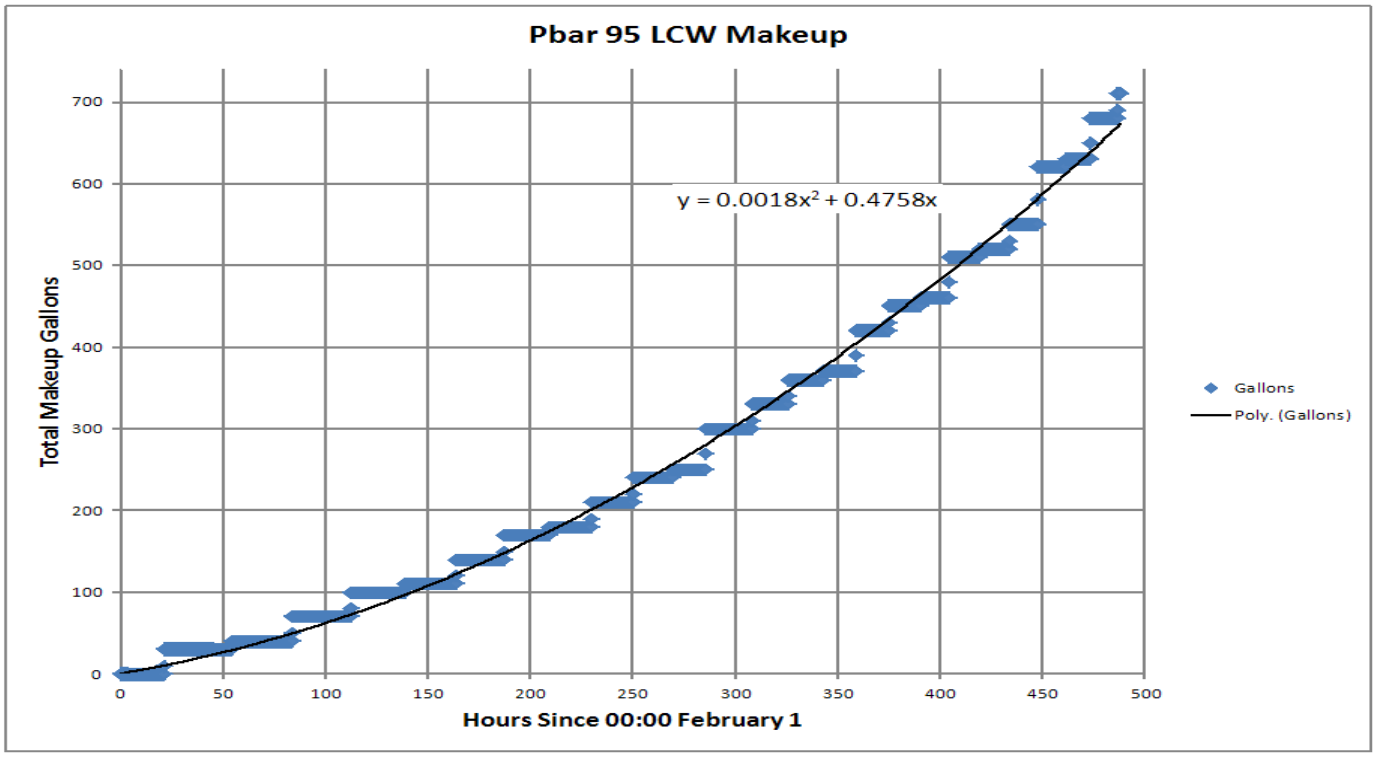
Plots



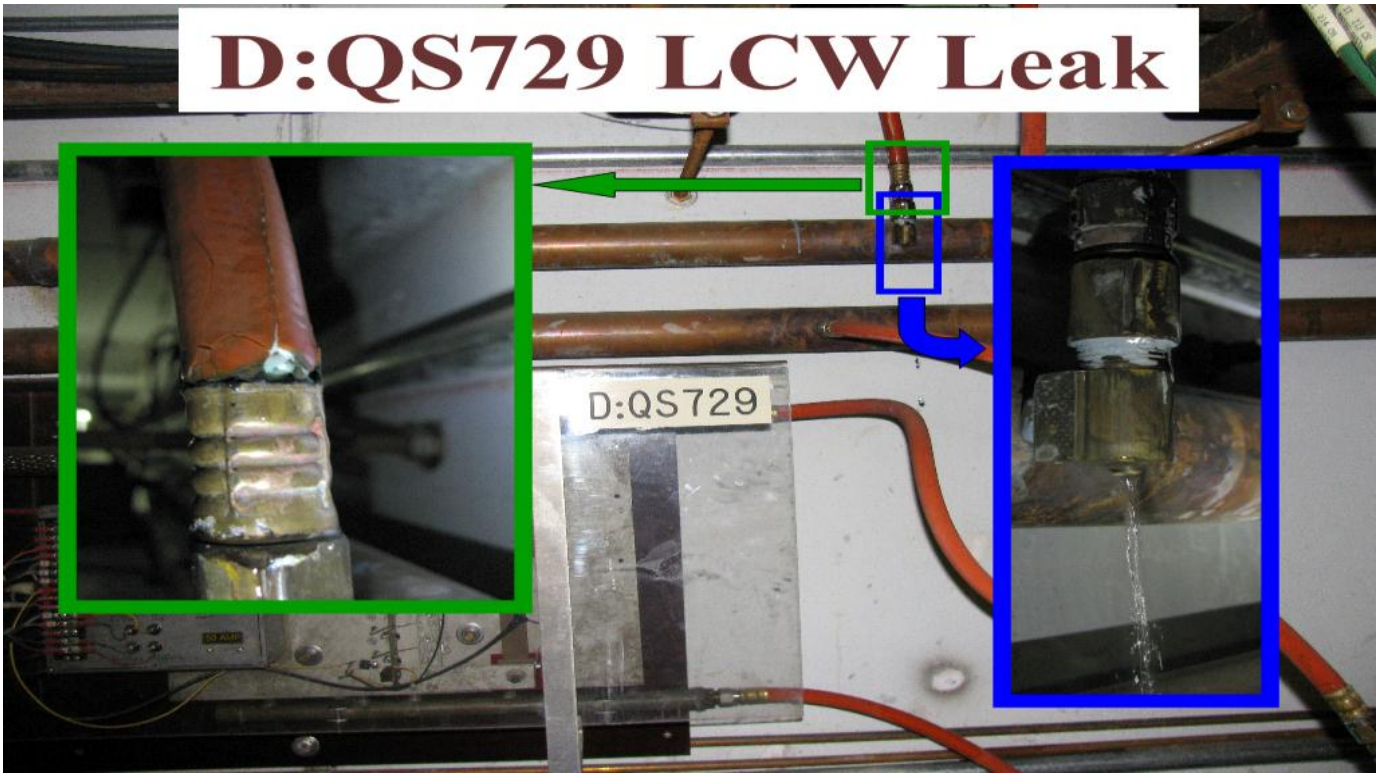
AP0 beam dump pressure



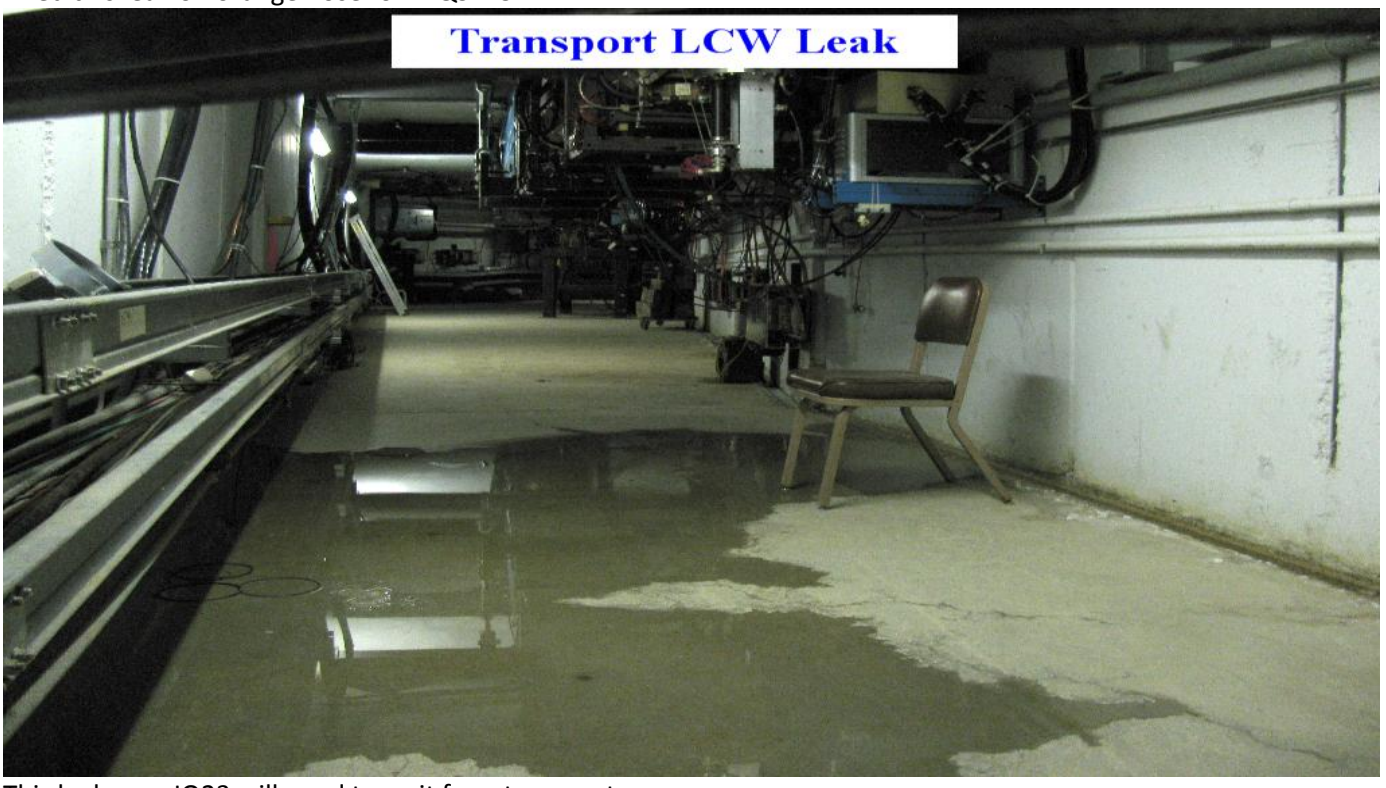
Flakey collection lens flow meter



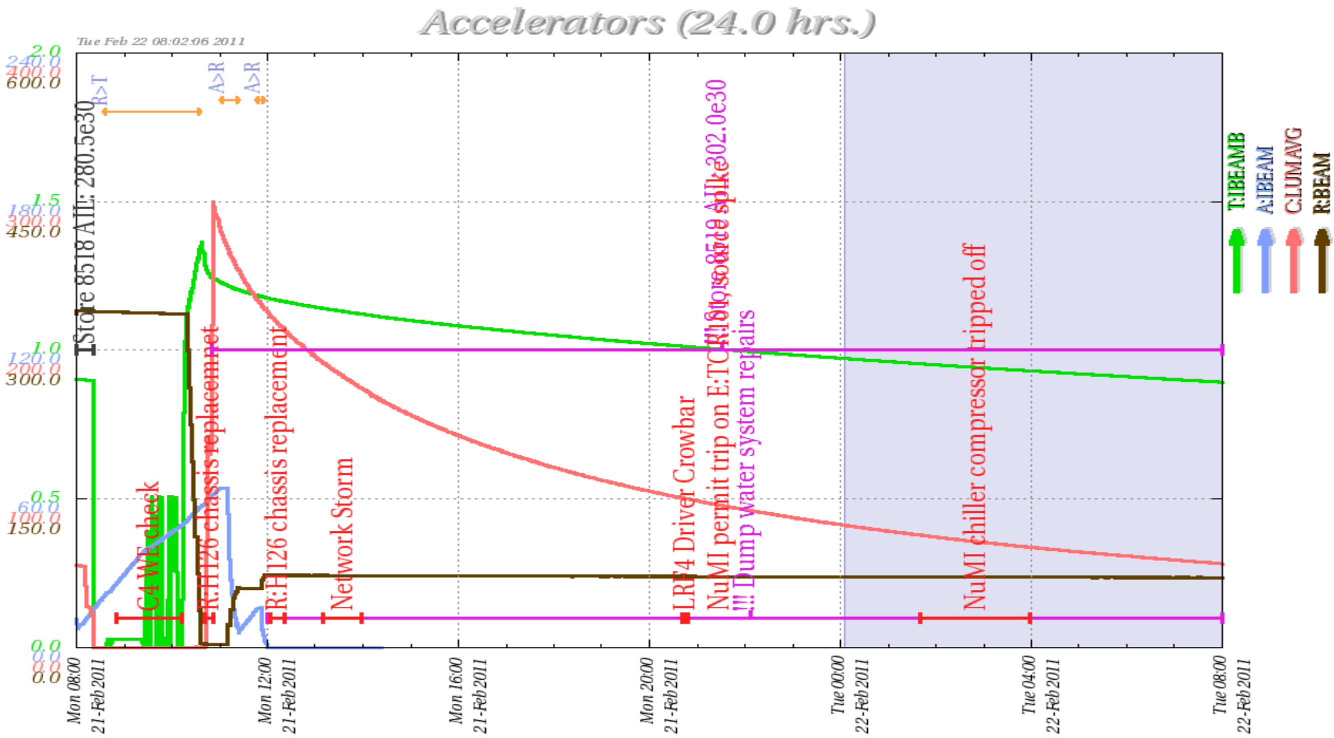
LCW leak continues to increase

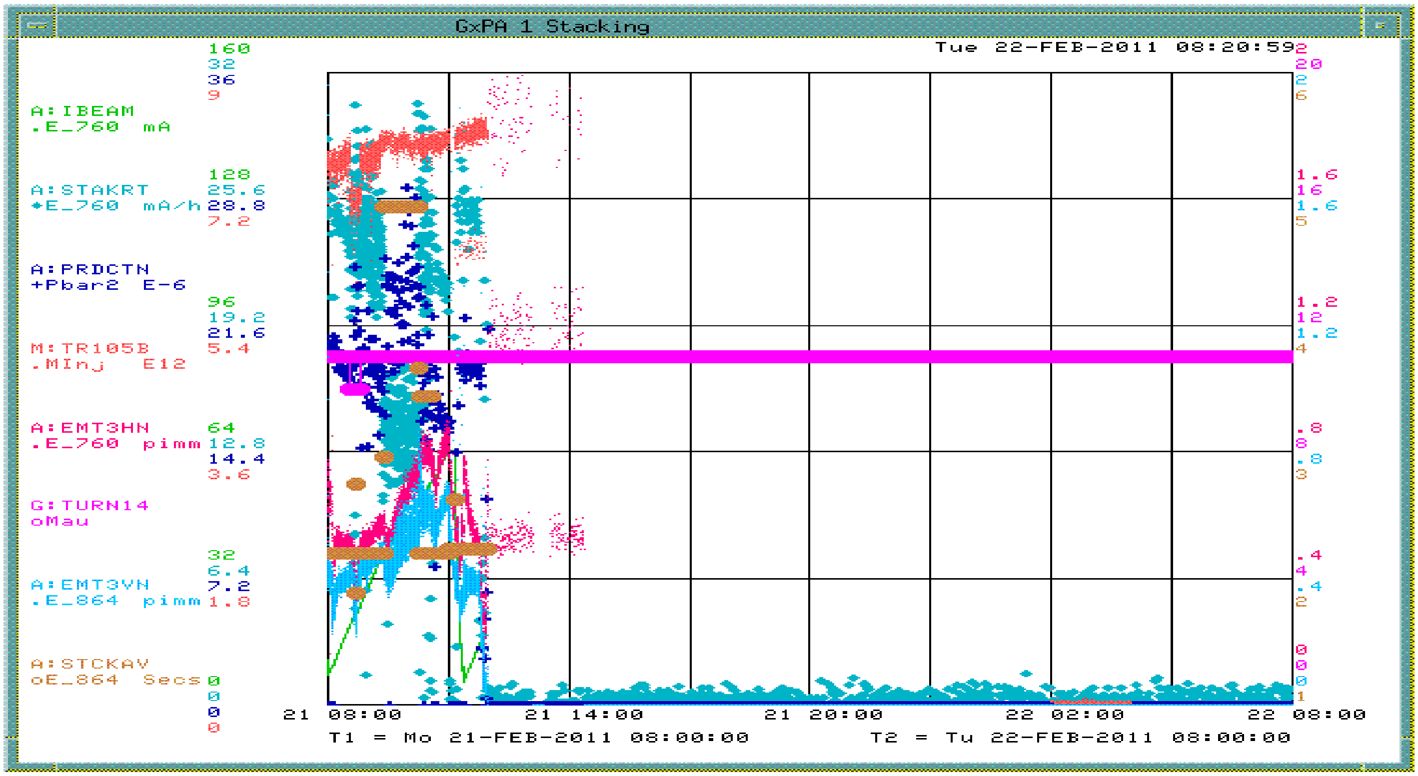


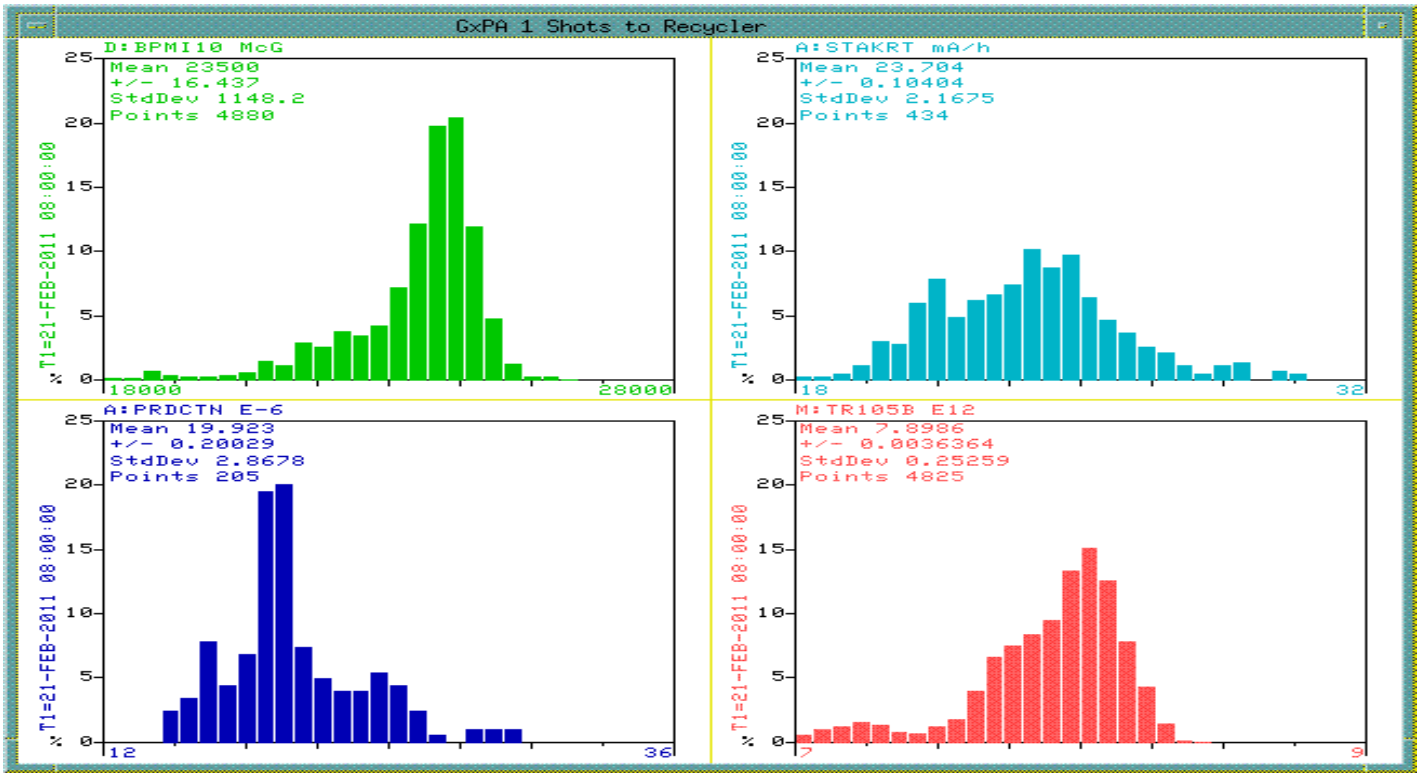
Fixed this leak on orange hose for D:QS729

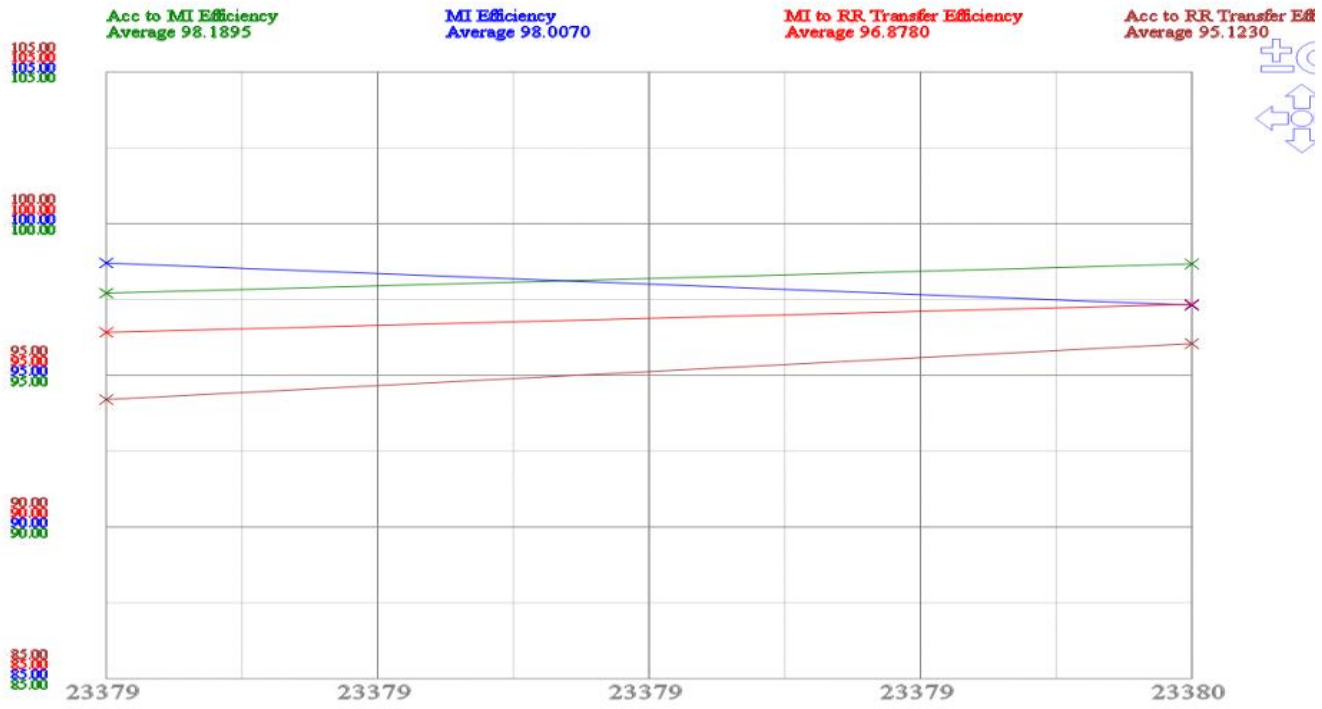


This leak near IQ23 will need to wait for a transport access


Accelerators (24.0 hrs.)
Tue Feb 22 08:02:06 2011
Store 8518 AIL: 280.5e30
C4 WL check
R:H126 chassis replacement
R:H126 chassis replacement
Network Storm
L:RF4 Driver Crowbar
NuMI permit trip on E:TOR101
!!! Dump water system repairs
NuMI chiller compressor tripped off
T:IBEAMB
A:IBEAM
C:LUMAVG
R:BEAM
Mon 08:00 21-Feb 2011
Mon 12:00 21-Feb 2011
Mon 16:00 21-Feb 2011
Mon 20:00 21-Feb 2011
Tue 00:00 22-Feb 2011
Tue 04:00 22-Feb 2011
Tue 08:00 22-Feb 2011


GxPA 1 Stacking
Tue 22-FEB-2011 08:20:59
A:IBEAM .E_760 mA
A:STAKRT *E_760 mA/h
A:PRDCTN +Pbar2 E-6
M:TR105B .MInj E12
A:EMT3HN .E_760 pimm
G:TURN14 oMau
A:EMT3VN .E_864 pimm
A:STCKAV oE_864 Secs
21 08:00
21 14:00
21 20:00
22 02:00
22 08:00
T1 = Mo 21-FEB-2011 08:00:00
T2 = Tu 22-FEB-2011 08:00:00


GxPA 1 Shots to Recycler
D:BPMI10 McG
Mean 23500
+/- 16.437
StdDev 1148.2
Points 4880
A:STAKRT mA/h
Mean 23.704
+/- 0.10404
StdDev 2.1675
Points 434
A:PRDCTN E-6
Mean 19.923
+/- 0.20029
StdDev 2.8678
Points 205
M:TR105B E12
Mean 7.8986
+/- 0.0036364
StdDev 0.25259
Points 4825
T1=21-FEB-2011 08:00:00


Acc to MI Efficiency
Average 98.1895
MI Efficiency
Average 98.0070
MI to RR Transfer Efficiency
Average 96.8780
Acc to RR Transfer Eff
Average 95.1230
23379
23379
23379
23379
23380

Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time		Column 21 Number_20_A:IBEAMB sampled on $91 (A:BEAM7), E10	Column 22 Number_21_A:IBEAMB sampled on $94 (A:BEAM9), E10	Unstacked (mA)	Column 23 Number_22_R:BEAMS (R:BEAME0[0]) pre xfer E10	Column 24 Number_23_R:BEAM (R:BEAME0[1]) post xfer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Transfers	Sets	Column 5 Number_4_Acc Horizontal Emittance	Column 6 Number_5_Acc Vertical Emittance	Column 8 Number_7_Acc Longitudinal Emittance
	Totals =>				76.36			71.98	94.26%	98.07%	96.63%	94.77%	7	2	3.8085	2.249	1.795
	Daily Average =>				76.36			71.98					7	2			
23380	Monday, February 21, 2011	11:52	16.01	2.36	13.93	59.93	73.22	13.38	96.04%	98.58%	95.94%	94.58%	2	1	2.558	1.082	1.732
23379	Monday, February 21, 2011	11:09	64.42	5.48	62.43	3.42	60.35	58.60	93.86%	97.96%	96.79%	94.82%	5	1	5.059	3.416	1.858